

Claims

We claim:

1. A method for controlling a leafhopper population with an insect growth regulator (IGR) said method comprising:

contacting said leafhopper population with said IGR; and

affecting the reproductive system of a female leafhopper while in diapause, thereby controlling said leafhopper population.

2. A method for controlling a leafhopper population, wherein said leafhopper population is a glassy-winged sharpshooter (*Homolodisca coagulata*) population, said method comprising:

contacting said glassy-winged sharpshooter population with an insect growth regulator (IGR); and

affecting the reproductive system of a female leafhopper, wherein said female leafhopper is a female glassy-winged sharpshooter, thereby controlling said glassy-winged sharpshooter population.

3. The method of claim 1 or 2, wherein said IGR is a juvenile hormone analog.

4. The method of claim 3, wherein said juvenile hormone analog is selected from the group consisting of epofenonate, fenoxycarb, hydroprene, kinoprene, methoprene, pyriproxyfen, triprene, and a combination of two or more of the foregoing.

5. The method of claim 4, wherein said juvenile hormone analog is selected from the group consisting of methoprene, kinoprene, and hydroprene.

6. The method of claim 5, wherein said juvenile hormone analog is methoprene.

7. The method of claim 2, wherein said female glassy-winged sharpshooter is in diapause.

8. The method of claim 2, wherein said female glassy-winged sharpshooter is a newly enclosed adult glassy-winged female.

9. The method of claim 3, wherein said female leafhopper is reproductively active.

10. The method of claim 3, wherein oviposition of said female leafhopper is suppressed or eliminated.

11. The method of claim 3, wherein said juvenile hormone analog interferes with oviposition of said female leafhopper.

12. The method of claim 1, wherein said female leafhopper is a sharpshooter.

13. The method of claim 12, wherein said female sharpshooter is a glassy-winged sharpshooter (*Homolodisca coagulata*).

14. The method of claim 1 or 2, wherein said IGR is formulated in a formulation selected from the group consisting of a liquid, a spray, a dust, a granule, and an aerosol.

15. The method of claim 1 or 2, wherein contacting said leafhopper population is by means selected from the group consisting of spraying, dusting, and sprinkling.

16. The method of claim 3, wherein said juvenile hormone analog is applied to any part of a plant.

17. The method of claim 1 or 2, further comprising applying at least one additional pesticidal agent wherein said additional pesticidal agent is not a juvenile hormone analog.

18. Use of an insect growth regulator (IGR) for controlling a leafhopper population during diapause, wherein said IGR affects oviposition of a female leafhopper to thereby control said leafhopper population.

19. Use of claim 18, wherein said IGR is a juvenile hormone analog.

20. Use of claim 18, wherein said juvenile hormone analog is selected from the group consisting of epofenonate, fenoxycarb, hydroprene, kinoprene, methoprene, pyriproxyfen, triprene, and a combination of two or more of the foregoing.

21. Use of claim 18, wherein said female leafhopper is a glassy-winged sharpshooter (*Homolodisca coagulata*).